



Insurance | Risk Management | Consulting



Office of Risk Management

Material Handling And Storage



Gallagher

Insurance | Risk Management | Consulting

Material Handling and Storage

Hazards



Gallagher

Insurance | Risk Management | Consulting

- 600,000 overexertion injuries, 27% of all lost- workday cases
 - 370,000 injuries caused by lifting
 - 93,000 pushing/pulling
 - Strains and sprains from loads that are too heavy or large
 - Fractures, cuts, and bruises from improper storage

General Work Practices



Gallagher

Insurance | Risk Management | Consulting

- Get help for large loads
- When blocking a raised load:
 - Keep hands from underneath before releasing load
 - Use blocking materials of adequate strength
 - Look for cracks, splintered pieces, rounded corners, etc.
- Attach handles or holder to loads
- PPE
 - Gloves, eye protection, safety boots (for heavy loads)

Mechanical Material Handling



Gallagher

Insurance | Risk Management | Consulting

- Do not overload equipment
- Refer to equipment rated capacity
- General forklift procedures
 - Center load on forks and close to mast
 - Do not overload
 - Do not add extra weight to counterbalance
 - Travel with load at lowest position

Materials Storage



Gallagher

Insurance | Risk Management | Consulting

- Stacked loads correctly piled and cross-tiered
- Stored material must not create hazard
- Areas free of accumulated material
- In buildings, no stored materials within 6 feet of hoist ways or 10 feet of exterior building walls
- Store non-compatible material separately

Lumber and Brick Storage



Insurance | Risk Management | Consulting

- Lumber
 - Maximum stack height
 - 16 feet (manual handling)
 - 20 feet (forklift)
 - Remove nails from used lumber
 - Stacks stable and self-supporting
- Bricks
 - Maximum 7 feet high
 - Above 4 feet, taper stacks 2 inches per foot

Block and Bag Storage



Insurance | Risk Management | Consulting

- Masonry blocks
 - Above 6 feet , taper stacks 2 blocks per tier
- Bags and bundles
 - Stack in interlocking rows
 - Step back at least every 10 layers
 - Remove from top of stack first
 - Keep baled paper and rags at least 10 inches from walls, ceilings, or sprinkler heads

Box and Drum Storage

- Boxed materials
 - Hold in place using cross-ties or shrink plastic
- Drums, barrels, kegs
 - Stacked symmetrically
 - If stored on side, block bottom tiers to prevent rolling
 - If stacked on ends, use planks, pallets, etc. between each tier
- Block cylindrical material (bars, poles, etc.)
- Use bins or shelves for materials that cannot be stacked

Manual Lifting



Gallagher

Insurance | Risk Management | Consulting

- Avoid manual lifting when possible
- Limit vertical lifting (knuckle-to-shoulder height)
- Be in good physical shape
- Plan the lifting operation
- Get a good grip
- Keep the load close to the body
- Do not twist or bend sideways
- Get help for large or heavy loads

Manual Lifting



Gallagher

Insurance | Risk Management | Consulting

- Recommendations for specific tasks
 - Grasp opposite corners on boxes, cartons & sacks
 - Use mechanical assistance for barrels and drums
 - Wear leather gloves when handling sheet metal
 - Plate glass
 - Carry with bottom edge in gloved palm, other hand on top edge
 - Never carry plate glass under the arm
 - Use a team for long objects

2-wheeled hand trucks



Gallagher

Insurance | Risk Management | Consulting

- Tip load forward and slip tongue underneath
- Keep center of gravity low
- Let the truck carry the load - don't lean it too far
- Walk forward - keep load height low enough to see
- Secure bulky items to the truck
- Use specialty equipment
 - Drums
 - Appliances

